METHOD AND APPARATUS FOR CONTROLLING A VEHICLE COMPUTER MODEL IN AN AGGRESSIVE LIMIT-SEEKING MANNER

Abstract

A simulation system (30) for simulating an operation of an automotive vehicle includes an input (34) providing vehicle information and path information and a controller (38) having a vehicle computer model therein. The controller (38) is programmed to determine a curvature of an intended path from the path information, determine a look ahead scale factor as a function of the intended path, determine a look ahead point as a function of the look ahead scale factor, determine a steering wheel angle input to the computer model by comparing the look ahead point and the intended path, operate the computer model with the steering wheel angle input, and generate an output in response to the vehicle model and the initial steering wheel input or the first steering wheel input.